

(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **08027114 A**(43) Date of publication of application: **30.01.96**

(51) Int. Cl.

**C07D215/14**(21) Application number: **06187729**(22) Date of filing: **18.07.94**(71) Applicant: **SUMIKA FINE CHEM KK NISSAN  
CHEM IND LTD**(72) Inventor: **NISHIZAWA SUSUMU  
MATSUMOTO HIROO  
OBARA YOSHIO**(54) **MANUFACTURE OF  
QUINOLINECARBOALDEHYDE**

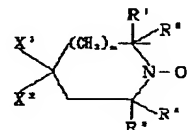
COPYRIGHT: (C)1996,JPO

## (57) Abstract:

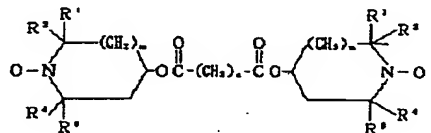
PURPOSE: To obtain a quinolinecarboaldehyde compound in high yield by oxidizing 2-cyclopropyl-4-(4-fluorophenyl)-3-hydroxymethylquinoline in the presence of a specific nitrosyl free radical derivative with a hypohalite.

## CONSTITUTION:

2-Cyclopropyl-4-(4-fluorophenyl)quinoline-3-carboaldehyde is obtained by oxidizing 2-cyclopropyl-4-(4-fluorophenyl)-3-hydroxymethylquinoline. This oxidation reaction is carried out in the presence of a nitrosyl free radical derivative of formula I or formula II ( $X^1$  and  $X^2$  are each H, a halogen, OH, a 1-5C alkyl, a 5-6C cycloalkyl, a 1-5C alkoxy, a 1-10C acyloxy, etc., or  $X^1$  and  $X^2$  together form O;  $R^1$  to  $R^4$  are each a 1-5C alkyl; m is 0 to 1) with a hypohalite. Preferable examples of the nitrosyl free radical derivative include 2,2,6,6-tetramethylpiperidine-1-oxyl, etc. Further, potassium bromide or sodium bromide is preferably added into the reaction system.



I



II